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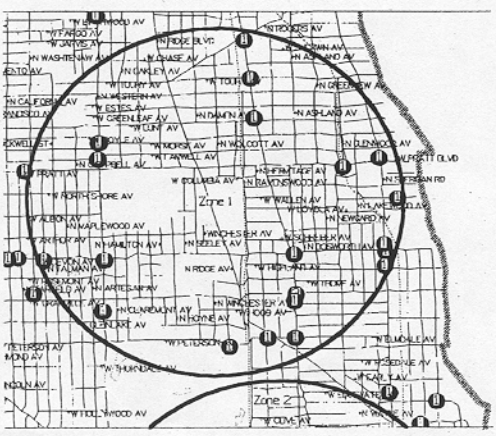
FIELD TEST OF A SAFETY ZONE PROGRAM FOR OLDER PEDESTRIANS

Safety zones have been used for years to safeguard child pedestrians around schools. The idea is to concentrate traffic safety countermeasures, such as safety advice, safety engineering, and law enforcement officer intervention where a particular pedestrian group congregates or lives. The National Highway Traffic Safety Administration (NHTSA) and the Federal Highway Administration (FHWA) sponsored a project that applied the safety zone concept to reducing injuries and fatalities to Americans 65 years of age or older. In 1996, older adults represented 12.8 percent of the population but accounted for 22.4 percent of all pedestrian fatalities, the highest fatality rate among all pedestrians involved in motor vehicle crashes. As our population ages, this problem is only expected to increase.

Dunlap and Associates prepared the report, ***Development, Implementation and Evaluation of a Pedestrian Safety Zone for Elderly Pedestrians.***

Define Pedestrian Safety Zones

Phoenix, Arizona and Chicago, Illinois were the two test sites. The first step was to develop a method to locate the safety zones in each city. Since over three quarters of the older adult crashes occurred within one mile of the victim's residence, circles with a radius of one mile were established as zones if 10 or more older adult pedestrian crashes occurred in them. Linear zones two miles long were also included if six or more crashes occurred in them. By this process, six circular zones and one linear zone were identified in Phoenix that accounted for 54.9 percent of the city's older adult crash population in about 4.6 percent of the land area.



Pedestrian Safety Zone 1 in Chicago

In Chicago, 14 circular and one linear zone accounted for 52.5 percent of their pedestrian crashes in just over 19 percent of the land area (see schematic).

Select Countermeasures

Next, several engineering and public information and education (PI&E) countermeasures were suggested to city representatives for consideration. Engineering activities included installing overhead pedestrian warning signs; trimming or removing trees or other obstacles to sight distance; improving crosswalks; installing signs explaining the meaning of the signal phases; installing a rumble strip before a high-use crosswalk; and others.

PI&E materials included a video, *Walking Through the Years,* that offers pedestrian safety advice for older adults, five television public service announcements (PSAs) for the older adult, and a set of 13 flyers for both pedestrians and motorists. There were also brochures, posters, bus cards, bumper stickers, radio PSAs, and slides. These materials are the outgrowth of a rigorous research process to highlight behavioral errors that are amenable to change.

Specific pedestrian risks addressed during this project were ♦ turning cars ♦ multiple threat and other visual screens ♦ looking before entering the street ♦ backing cars ♦ parking lots ♦ conspicuity ♦ the fresh green light ♦ drive-ways and alleys ♦ flashing "Don't Walk" signs.

City representatives designed their own unique countermeasure programs. Among other activities, Phoenix chose to

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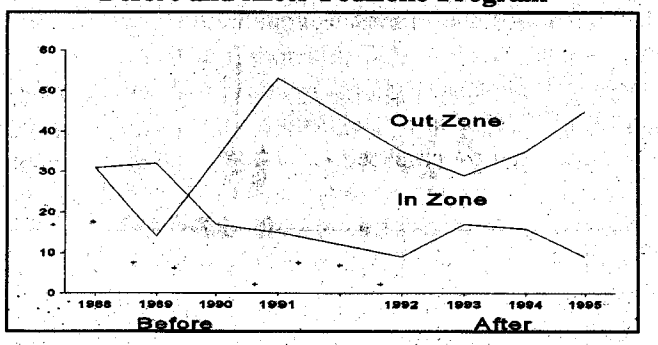
distribute flyers as door hangers to each residence in the zones, and put up signal information signs near pedestrian push buttons in and near the zones. In Chicago, police officers made presentations at senior centers, residences, and other places where older pedestrians could be found.

Pedestrian Crashes Decrease in Zones

An impact evaluation conducted in Phoenix found that while both the overall population and pedestrian crashes increased over the study period, older adult crashes decreased by 13.7 percent. More impressive, there were fewer crashes in each of the pedestrian zones, amounting to an overall 46.3 percent decrease in pedestrian crashes. Crashes in comparable areas outside of the safety zones increased 9.9 percent. These changes were statistically significant.

Older Pedestrian (65+) Crashes Before and After PedZone Program



The biggest improvements occurred at intersections in the zones -- places where countermeasures such as signal information signs and increasing available sight distance were employed. An impact evaluation was not conducted in Chicago.

This comprehensive report will be useful to any community that wants to apply zoning countermeasures to reduce older pedestrian crashes. Zoning is an approach that should be considered as part of any pedestrian crash countermeasure program that has a facilities or traffic site component. City representatives reported that the zones were effective in focusing their attention on specific regions where their city had an older adult pedestrian crash problem.

The report includes detailed appendices with zones, prospectus, flyers and brochures, a section of the Phoenix zone workbook, field survey checklist, and survey procedures, forms, and instructions. A "how to" *Zoning Guide* is being prepared currently. It will explain how to design and use pedestrian safety zones.

HOW TO ORDER

For a copy of the report, **Development, Implementation and Evaluation of a Pedestrian Safety Zone for Elderly Pedestrians,** (137 pages), write to the Office of Research and Traffic Records, NHTSA, NTS-31, 400 Seventh Street, S.W., Washington, DC 20590, or send a fax to (202) 366-7096. For more information about this study contact Marv Levy, email, *mlevy@nhtsa.dot.gov*.

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